

LABOUR REGIMES AND WORKPLACE ENCOUNTERS BETWEEN CHINA AND AFRICA

Pre-proof version of Chapter 12 in Forthcoming 2019 ‘China-Africa and an Economic Transformation’, edited by Justin Lin and Arkebe Oqubay, Oxford University Press.

Abstract

This chapter explores labour outcomes and dynamics for Chinese FDI and infrastructure contractors through their encounters with workers, states, and labour institutions in Africa. The chapter critically assesses the most popular claims about job creation and working conditions in Chinese firms in Africa and offers an alternative and more empirically nuanced view of the employment realities and dynamics in construction and industrial Chinese firms across Africa. The chapter questions claims of ‘Chinese exceptionalism’ in labour relations, and proposes a labour regime analysis to grasp the power of global capitalist forces, national political economy, and micro-level workplace processes to better understand labour relations in China as well as in Africa, in the sectors where Chinese firms are particularly present. This framework is deployed to illustrate the variation, diversity, and changes in labour regimes in China and among Chinese firms in Africa, and the key factors that drive such variations.

Keywords: Labour regimes, employment, FDI, China, sub-Saharan Africa, manufacturing, construction

Carlos Oya, SOAS, University of London

Introduction: workplace encounters and economic transformations*

A Chinese foreman wearing a large straw hat in the scorching sun gives instructions to a group of five Angolan workers giving the finishing touches to a pavement on a new road in Angola. Another group of workers surrounds a Chinese employee in blue uniform, who is handing out payslips for signature, which workers take to a tin shed at the end of the building site. Nearby an Angolan worker is operating a large motor grader sitting alongside a Chinese operator who monitors every single movement with an intense look. Further away, in Ethiopia, a Chinese factory manager walks around a couple of production lines shouting orders to an Ethiopian line supervisor while dozens of young women are busy stitching parts into a model for trousers. One of the lines is lagging behind and disrupting the workflow for other lines. Another Chinese supervisor summons a group of workers to quickly move to the refectory for the lunch break, uttering a few basic words in Amharic while using hand-to-mouth signs.

These workplace encounters are becoming increasingly common in many African countries. Images of Chinese and African workers together in construction sites and factories have become an important area of interest in much of the reporting on China–Africa encounters. What these images have in common is the emergence of new jobs in non-primary sectors at a time when debates on the imperative of structural transformation in Africa are raging. The opportunities arising from the investments and projects of Chinese and many other Asian

* This working paper was written for the research project *Chinese Firms and Employment Dynamics in Sub-Saharan Africa: A Comparative Analysis*, funded by the ESRC-DFID grant ES/M004228/1 under the DFID-ESRC Growth Research Programme (DEGRP). The paper has benefited from comments and suggestions from Advisory group academic advisors, CK Lee, Lucy Corkin and Pedro Martins. The paper also received excellent comments from participants to the writing workshop in Addis Ababa on 30-31 August 2018, as well as key guidance from the editors of the book and one reviewer. All errors and omissions are my sole responsibility.

enterprises in the manufacturing and construction sectors in many parts of Africa are highly visible even if official statistics still depict an image of agrarian-based economies.

Chinese FDI to sub-Saharan Africa (SSA henceforth) has grown substantially since the early 2000s (see Chapter 1). A large proportion of these investments are from medium-sized enterprises in the manufacturing and services sectors, often oriented towards domestic markets (McKinsey, 2017; Shen, 2015; see also Chapter 15). Meanwhile, the presence of Chinese construction companies has boomed in Africa during the same period at an even more impressive pace. The construction boom in Africa, both for residential and infrastructure investments, has attracted a large number of Chinese contractors, mostly SOEs. As a result, SSA is the second most important overseas market for Chinese construction firms, with US\$ 40.6 billion (Wolf and Cheng, 2018). By 2017 Chinese contractors accounted for nearly 60 per cent of the African construction market for the top 250 international contractors (ENR, 2018). In fact, the value of Chinese construction projects and contract revenues far exceeds the flows (and even stocks) of Chinese FDI to the African continent, reaching almost US\$45 billion compared with just over US\$30 billion of FDI stocks by 2015 (Wolf and Cheng, 2018).

While there are different labour intensities associated with different sub-sectors and types of construction, there is no doubt that the expansion of industrial investments and construction projects has created a huge number of non-agricultural jobs across African economies. Thus increasing numbers of Chinese firms, as well as companies originating elsewhere, especially the Middle East and Asia, are gradually contributing to the process of building an industrial labour force in Africa (Oya, 2019). Yet, much of the journalistic reporting focuses on the presence of Chinese workers throughout the continent. There is also much talk about sub-standard working conditions and whether China is exporting poor labour practices (Shelton and Kabemba, 2012; Baah and Jauch, 2009).

This chapter has the following objectives. First, it critically engages with popular claims about job creation, working conditions, and skill development in Chinese companies across Africa and offers an alternative more empirically nuanced view of these realities. Second, it proposes a labour regime analytical framework, and different research questions, to understand the interaction of global, national, and local forces in the determination of labour outcomes, to question the often assumed Chinese ‘exceptionalism’ in labour relations, and to better understand workplace relations in Africa in the sectors where Chinese firms are particularly present. Third, it illustrates through emerging case-study research how different labour practices arise in different countries and sectors, underscoring the importance of sector and context specificity, management practices, and local (African) agency in determining labour outcomes.

China–Africa labour encounters: dominant and emerging questions and debates

There is a growing number of studies and journalistic material reporting on the employment effects of Chinese firms in Africa. While China is seen as a popular partner, primarily because of its contribution to infrastructure development,¹ Chinese employers do not enjoy the same popularity (Sun, 2017). Although the literature on labour effects of Chinese firms in Africa is still in its infancy, there are three types of common claims and perceptions that are often found in media reports, some academic publications, and indeed when interviewing different kinds of respondents in business and government settings. First is the claim that Chinese firms mostly or often employ large numbers of Chinese workers in positions that should be filled by African workers. Second, it is often reported that working conditions are sub-standard and exploitative in Chinese firms in Africa. Third, the limited localization is

¹ <https://edition.cnn.com/2016/11/03/africa/what-africans-really-think-of-china/index.html>

compounded by very limited efforts to develop the skills of local workers. We will discuss each of these claims in turn and compare with the best available evidence.

Workforce localization: do Chinese firms rely on Chinese labour?

On the issue of job creation and localization, a common perception is the reliance on Chinese labour and the limited hiring of local labour (French, 2014). At one extreme of this widespread narrative are ludicrous stories that have survived over time about the issue of Chinese prison labour in Chinese construction sites in Africa.² Yet, this kind of story continues to be reproduced by journalists and even researchers (see Sautman and Yan, 2016, for some examples). This perception is now fortunately more widely questioned thanks to the growing availability of evidence to the contrary,³ even if such claims persist among uninformed commentators, firm managers, journalists, and even some African government officials, as we encountered in our own research in Angola and Ethiopia in 2016–17.

More reliable statistics on Chinese workers in Africa, as compiled by SAIS-CARI, show a marked increase between 2001 (nearly 47,000 workers) and 2016 (227,000 workers) with a peak of over 263,000 in 2015. Of these, the proportion of Chinese workers in SSA countries has been steadily declining from a peak of 78 per cent in 2011 to only 58 per cent in 2016, so that North Africa has a disproportionate share of Chinese workers and lower levels of localization. In absolute terms, after years of growth, the number of Chinese workers in SSA declined by nearly 20 per cent, a sign that workforce localization has been gaining force both in absolute and relative terms.⁴

² The origin of this bizarre claim can be traced back to a New York Times column in 1991 <https://www.nytimes.com/1991/05/11/opinion/1-china-has-used-prison-labor-in-africa-540291.html> . See also Brautigam's blog on the matter <http://www.chinaafricarealstory.com/2010/08/is-china-sending-prisoners-to-work.html>

³ <https://www.reporting-focac.com/5-china-africa-myths.html>

⁴ All these calculations are based on analysis of data provided by SAIS-CARI at <http://www.sais-cari.org/data-chinese-workers-in-africa>

There are already a number of large studies and plenty of specific case-study evidence suggesting that levels of workforce localization (as proportions of African workers in Chinese firms in Africa) are high and have been increasing across several countries in the past ten years. The most recent and comprehensive source of evidence on workforce localization is the survey of over 1,000 Chinese firms in eight countries conducted by McKinsey (2017). This report shows how these firms largely rely on local labour, despite some significant variation by project and sector. The average rate of localization is 89 per cent. Sector matters and in manufacturing this proportion reaches 95 per cent (McKinsey, 2017: 41). This is consistent with another large-scale compilation of more than 400 firms/projects from several hundred interviews and thousands of documents (Sautman and Yan, 2015), which concludes that the average localization rate is 85 per cent, with most firms clustered within the 80–95 per cent band largely depending on sectors. In our own project, we compiled nearly 60 studies/cases covering the wide spectrum of projects from very low to very high levels of localization and a weighted average of 85 per cent (see Table A1 for an illustrative selection of these sources).⁵ About two-thirds of these cases/studies had localization rates exceeding 80 per cent. Moreover, comparisons between firms of different (foreign) nationality are rare but Rounds and Huang (2017) provide unusual evidence of roughly similar rates of localization between Chinese and American firms in Kenya (78 and 82 per cent respectively). More comparisons would surely show that the proportion of ‘expat’ labour in other foreign firms is not negligible, but such comparative evidence is generally missing.⁶

Claims of widespread use of Chinese workers contrast with significant differences in workforce localization rates, with certain countries like Angola or Equatorial Guinea receiving more Chinese labour in absolute and relative terms compared to other countries

⁵ The simple arithmetic mean is 75 per cent.

⁶ For example, according to our own interviews, three well-established Angolan road contractors employed 5, 20, and 30 per cent of expat labour in 2016 respectively, with differences being partly related to the relative scarcity of projects during that period.

where the presence of Chinese expat labour is more limited (see Table A1 in Appendix for examples of variation). Moreover, SAIS-CARI databases on Chinese workers in Africa show a stable pattern between 2009 and 2016, when the recorded number was just over 200,000 workers. Given the rapid increase in Chinese FDI and construction projects (Wolf and Cheng, 2018), and assuming a similar rate of growth in job creation, most of the expansion in employment during that period must have gone to African workers. Cheru and Oqubay (see Chapter 15) show that Chinese FDI has created many more thousands of jobs (nearly 40,000 between 2000 and 2016) than other foreign companies. This dominance in absolute number of jobs created is compatible with the use of some Chinese labour for strategically critical positions. Especially in the early period of expansion of construction projects and FDI Chinese firms saw advantages in using Chinese workers for management, engineering, and skilled positions as they were more familiar with “companies’ organization and process”, quicker for the process of installing new equipment imported from China, and to make sure the first projects with some political significance were completed in very short timeframes, compared to competitors (Tang, 2016: 110).

Variation in rates of localization and job creation for African workers is linked to several factors. First, variation across countries may be due to differences in the requirements set out by host countries with regard to the type of expat labour that can be imported into the country as well as to the structural deficits in technical/skilled labour (Sautman and Yan, 2015). Countries like Angola or Equatorial Guinea are more affected by skill shortages in the labour market than other countries like South Africa, Ghana, or Kenya. Some countries (e.g., Ethiopia) have strict visa policies and only very limited categories of workers were allowed to obtain work visas, suggesting this is an important policy tool that can determine the rate of localization by imposition. Second, ownership (private or state) seems to have mixed effects. Our own analysis of several cases/studies of construction projects suggests that state-owned

enterprises (SOEs) tend to have higher percentages of local workforce, partly due to more compliance with legal requirements when these are set by host countries, partly because of the costs of hiring Chinese labour in SOEs. However, the McKinsey report (2017) finds the opposite for their sample of firms across different sectors, where private firms tend to rely more on local labour (92 per cent) than SOEs (81 per cent). The main reason for this is the dominance in their sample of private firms operating in manufacturing and services, where localization rates are higher since skill demands may be lower than in many infrastructure projects that also suffer from the imperative of timely project completion. In other words, sector matters and the specific technology used by a firm also shapes the need for expat labour in foreign firms. Third, the type of project also matters: we observed in Angola that in flagship infrastructure projects with demanding technical standards firms had no option but to bring in specialized experienced workers in order to meet the tight time schedule and the quality expectations of the client (i.e., the Angolan authorities). Fourth, the longer Chinese companies operate in a country, the more settled they are, the more they rely on local workers (Tang, 2016; Lam, 2014; Sautman and Yan, 2015; Corkin, 2011). There are different forces at play in this case. On the one hand, as Chinese firms settle in new markets and gradually build a core local labour force, their recruitment processes adapt to the new context and the skills developed among local workers pay off after an initial transitional period. On the other hand, since the early 2000s, the rapid growth in labour costs in China has meant that Chinese workers have become increasingly expensive and less affordable for companies operating overseas, even for large SOEs. Economic crisis and foreign exchange shortages may also force firms to reduce their expat labour force given the difficulties of paying in foreign currency.⁷ In any case, the evidence reviewed here shows that the contribution to the mass creation of unskilled and semi-skilled jobs for African workers is beyond doubt, and the

⁷ This evidence is based on interviews with several SOE managers in Angola and Ethiopia.

implications for processes of structural transformation are significant since many of these jobs contribute to the gradual building of an industrial labour force in Africa.

Working conditions

Evidence on working conditions is also patchy and largely anecdotal. Most available empirical studies suggest that Chinese firms comply with national minimum wage legislation but in some cases offer lower wages than their competitors in the same sector. This does not mean wages lower than national or sector averages, just that pay may be lower than other firms in the same sub-sectors. However, overall the evidence is not conclusive and lacks comparative quantitative rigour (Oya et al., 2018).

Tang (2016) provides various examples where reported wages were ‘low’ in relation to the ‘national average’ or other foreign firms.⁸ Baah and Jauch (2009) also conclude that Chinese firms in Angola, Ghana, Namibia, South Africa, and Zambia tended to pay the lowest wages when compared to local and other foreign firms. A much-debated HRW report on Zambian mines (2011) emphasized that Chinese-owned copper mines offered the lowest salaries compared to other OECD-owned mines despite paying above the national minimum wage, but these comparisons have been criticized for lack of empirical rigour (Sautman and Yan, 2016; Lee, 2017). There are also examples where wages are not as low as expected. A very recent survey in the Eastern Industrial Zone in Ethiopia suggests that average wages among Chinese factories in the zone are considered ‘low’ by workers but they are well above a reported national average in the formal sector (Fei, 2018). In a 2012 World Bank survey of firms in Ethiopia, median wages in Chinese firms were 60 per cent higher than in domestic firms (Bashir, 2015: 8). At GUMCO, a Chinese ceramic manufacturer in Ghana, wages of

⁸ An important limitation of some of these comparisons is that data on wages in most African countries are scarce and typically representative of the most advanced formal enterprises, i.e., excluding the informal activities where most jobs are found. Therefore a ‘national average’ may be very high compared to the average conditions of most workers in the country.

Ghanaian workers (ranging between US\$2.2 and US\$10 per day) were both above the national minimum wage of US\$1.9 per day (as of 2008) and also above the Indian comparator plant offering US\$1.9 per day (Akorsu and Cooke, 2011).

Beyond wages, evidence is more abundant on harsh working conditions in terms of long working hours, lack of written contracts, resistance to unionization, and more frequent breaches of labour regulations compared to other foreign companies (McKinsey, 2017; Rounds and Huang, 2017). Labour conflicts seem more frequent in Chinese-owned firms, but this may reflect the greater attention that these firms have received compared to companies of other nationalities and especially domestic ones (Rounds and Huang, 2017; Sautman and Yan, 2016). More conflictual relations have also been blamed on perceived resistance by Chinese employers to the presence of unions and communication barriers (Sautman and Yan, 2016; Tang, 2016). Various studies have however shown that Chinese private firms may start operations with relatively unfavourable non-wage conditions but can gradually and sometimes quickly adapt and meet demands from collectively organized workers or from the host states (Lee, 2017; Tang, 2016). Our own research in Ethiopia and Angola also seems to point to wide variation in comparative wages among Chinese firms, depending on sector, firm size, market structures, and management behaviour. Where wages are lower than comparators, there are different reasons, such as low initial profitability after important capital investments (mines in Zambia), tighter profit margins for small-medium firms subject to fierce global competition, or reliance on more labour-intensive methods (Tang, 2016). In contrast, other firms opt to pay wage premia and out-compete other players in the sector to attract higher-quality workers as observed in Ethiopia's industrial zones. The relative strength of labour institutions, especially unions, also contributes to wage equalization among foreign firms in the same sectors, as in South Africa (Huang and Ren, 2013).

These findings should also be put in perspective and understood within the wider context of labour market deregulation and privatization following structural adjustment reforms. All African countries, after decades of structural adjustment and waves of liberalization and privatization, have experienced a systematic weakening of labour institutions and mass informalization and casualization of labour (Lee, 2017; Meagher, 2016). The majority of Chinese firms have entered African markets at the peak of neoliberal hegemony on the continent. Conditions found in Zambian mines, for example, are more strongly linked to the crisis and reforms in the sector in the 1990s than to the nationality of foreign firms (Lee, 2017).

Skill development

Sometimes low wages in early processes of industrialization are compensated for by the prospect of acquiring new skills and more stable jobs (Fei, 2018). Hence skill development is seen as one of the potential contributions from new Chinese investors especially in manufacturing. While construction projects provide some form of short-term transferable capabilities, factories have the advantage of contributing with long-term capability development. However, there are some claims that Chinese firms make a very limited contribution to skill development (Baah and Jauch, 2009). More recent survey work suggests that training is provided but workers arrive with higher expectations and find that training provision is not enough, although those working for globally integrated firms certainly receive substantial and more frequent training. The literature almost unanimously confirms that, contrary to popular belief, Chinese firms do engage in labour training (e.g., Bashir, 2015; Shen, 2015; Corkin, 2011; Tang, 2016; Rounds and Huang, 2017; Lam, 2014). The McKinsey report (2017) confirms that nearly two-thirds of over 1,000 surveyed Chinese firms engage in training of local employees (43 per cent in the form of apprenticeship) but in

construction and manufacturing, where skills are particularly important for African workers, 73 per cent of firms offer training/apprenticeship.

Variation among Chinese firms is important and useful policy lessons can be extracted from these differences. First, some sectors/industries tend to be more skill intensive and necessarily engage in more training, whereas basic assembly jobs in light manufacturing produce a more limited range of skill transfer (Chen et al., 2016). Second, larger and more globally integrated firms have fairly sophisticated training systems, including combinations of local training centres, periods of intensive learning and skill development in China (especially for managers, skilled personnel, and semi-skilled workers), and continuous on-the-job training with career development attached (Tang, 2016; Sun, 2017).⁹ Third, getting serious about building local skills and capabilities is also a way of meeting expectations from host states, which are important for the accumulation logic of many Chinese SOEs (Lee, 2017). Fourth, in some countries the state (through investment agencies and labour institutions) and lead firms in global production networks (GPNs) can put pressure on suppliers to boost skill formation in host countries and potentially contribute to the gradual development of skill development ‘systems’ associated with priority sectors.

One important reason why firms feel compelled to train their new workers is dissatisfaction with existing technical and vocational training systems in host countries, which makes managers prefer to “hire someone off the street who’s a blank slate” and directly invest in the most relevant skills for the company (McKinsey, 2017: 40). This is a strategy that is common to many other foreign investors, especially in export-oriented factories. Indeed job experience is the most effective form of training in the long-term process of industrial development (Amsden, 2001). Gerschenkron (1962) recognized long ago that the availability of cheap

⁹ Not less important is the Chinese government contribution to education and training in Africa, through scholarships, professional courses, infrastructure investments, and various forms of partnership (Bashir, 2015). It is however beyond the scope of this chapter to discuss the impact of these programmes.

labour in latecomers was no guarantee of rapid industrialization, because in most agrarian-based economies the kind of labour force that suits the demands of industrial factory work (time management, discipline, effort, reliability, etc.) is actually very scarce (see also Oya, 2019). Thus, besides the existence or not of formal training programmes, these experiences suggest that hundreds of thousands of African workers who are often migrants finding entry-level non-agricultural jobs are learning the basic skills of the occupations that are likely to grow in the next decades, thereby making a contribution to the prospects of further structural transformation.

Summary

This section has taken stock of the published evidence on labour outcomes in Chinese enterprises in Africa. The literature on labour issues and outcomes within the broad ‘China in Africa’ field is still in its early days. Much more empirically grounded analysis is needed. Many of the debates and claims that have dominated the headlines in the intersection of media representation and some academic research lack analytical basis and empirical foundations. While an emerging body of ethnographic and qualitative research has helped debunk some myths, there is still a lack of rigorous quantitative evidence. Indeed, in our survey of the literature we have not found any large-scale quantitative survey of working conditions from the perspective of labour (i.e., workers’ surveys rather than self-reported data from company management).¹⁰ More alarming is the scarcity of comparative evidence, which is needed to overcome biases that reinforce ideas of Chinese ‘exceptionalism’. Indeed, an important problem with the way labour issues (and many other aspects) in the ‘China in Africa’ field have been analyzed is the ‘methodological nationalism’ which assumes intrinsic characteristics that apply to all sorts of Chinese actors in Africa. Thus, more quantitative and

¹⁰ A SOAS research project currently under way aims to fill this gap with a survey of over 1,500 workers in nearly 80 firms in Ethiopia and Angola, but statistical results are not yet available. See <https://www.soas.ac.uk/idcea/>

qualitative comparative evidence on different kinds of Chinese and non-Chinese firms is sorely needed.

Overcoming ‘Chinese exceptionalism’ requires a different set of questions. Is there one Chinese ‘labour regime’? Is it different from labour regimes in developed or developing countries? If so, when firms travel overseas, do they travel with their labour practices? If not, what determines variation in labour outcomes among different firms in African countries?

Whether or not working conditions in Chinese-owned enterprises in Africa are worse than relevant comparators, or mixed according to which sector or type of firm, a more important question is *why*. There is emerging research that seeks to tackle these questions, as we shall see. Before we extract key insights from such studies, we next consider the complexity of factors shaping the labour implications of Chinese investments and projects in Africa, and contextualize the *modus operandi* of Chinese firms by considering the different labour regimes found in China and some of China’s labour market shifts in the past three decades.

Understanding labour regimes in China

Labour regimes and capitalism

In order to understand labour outcomes (as working conditions and standards), several relevant factors must be considered. Different levels of analysis, from more abstract to more concrete, from the global to the local, are necessary to make sense of the multiple aspects that affect the conditions workers face in particular workplaces. The notion of ‘labour regime’ is useful as a conceptual tool to explore interconnections between multiple factors and the differences between practices in different sectors and workplaces. Bernstein (2010: 125) defines a labour regime as “the different methods of recruiting labour and their connections with how labour is organized in production (labour process) and how it secures its

subsistence”. Labour process theory is useful to understand the workplace dynamics and antagonistic interests of capital and labour, the former driven by the logic of accumulation to control and extract as much labour as possible from workers, and the latter resisting such pressures. Bernstein’s definition, however, implies an extension of the analysis to understand how labour is mobilized to become available beyond the workplace, as well as how it is reproduced in a capitalist labour market. This analytical extension is exemplified by Burawoy’s notion of the “factory regime” (Burawoy, 1985), encompassing labour relations in production in conjunction with relations of production more broadly, by connecting the micro of the workplace with the macro politics of capital–labour relations in a national or global context.¹¹ Lerche et al. (2017) add the relation between productive and reproductive realms to the concept of labour regime.¹² As Selwyn (2016) notes, labour regime analysis is “necessarily multi-scalar”, incorporating the global, national, regional, and local. The analytical extension also combines relations of production (and the capital–labour conflict) with relations to the market (i.e., commodification, especially of labour, land, and money) (Burawoy, 2013). These two relational processes in capitalism reflect both class struggle in the Marxian sense, and the movements and counter-movements in the Polanyi sense, or, as Selwyn (2014: 1020) puts it, “Marx-type and Polanyi-type struggles (offensive and defensive struggles)”.

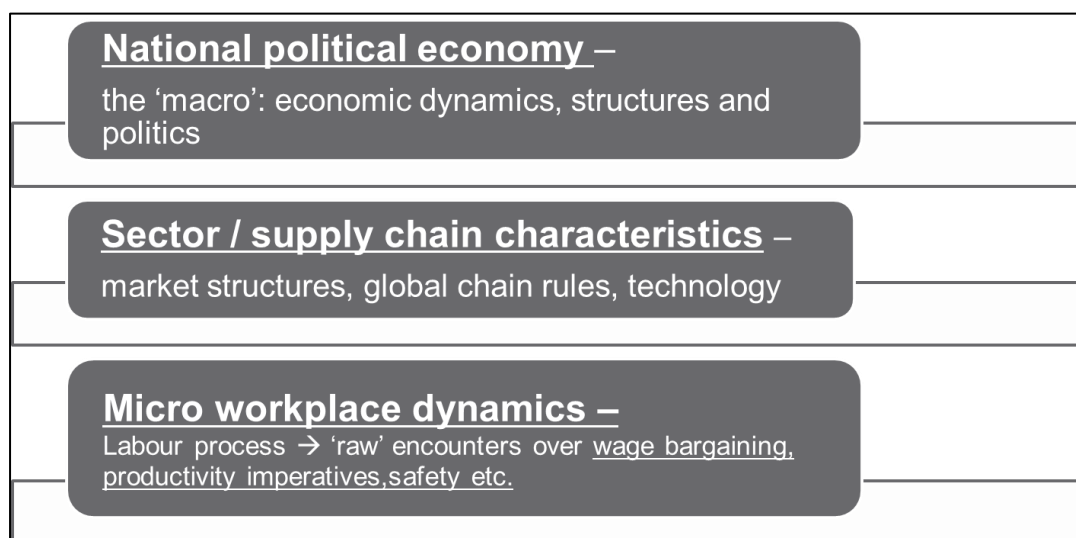
Drawing from this analytical framework, it is possible to operate at three different and interconnected levels of analysis to explain the multiple determinants of labour outcomes in a given context (see Figure 13.1). First, starting at the bottom, are the micro workplace dynamics and ‘raw’ encounters between employers and workers over wages, productivity

¹¹ Lee (1999) uses the notion of “factory regime” to encompass the institutional and political apparatus that regulates workplace politics (at macro level) and the labour process and social organization of production at micro-factory level.

¹² In plain language, employers operate different mechanisms of labour control that affect workers’ lives beyond the factory floor.

imperatives, safety, effort, and labour time. Second are the characteristics and dynamics of a particular sector or global production network, which cuts across national boundaries and generates specific imperatives of labour control and standards, through market structures, competition, global chain rules, and technology, and which are intimately linked with skill requirements, spatial dimensions of labour processes, and even prevailing work culture and management ethos. Third is the national political economy, and particularly the macroeconomic dynamics shaping economic transformations and structural change alongside the macro politics of production and state–society relations which shape labour supply dynamics and the arenas of different struggles, whether over the extent of commodification, the limits to labour reproduction, or claims over representation. In this case, the relations between state, capital, and labour and the institutions that underpin these relations are critical to understand labour outcomes. Through such analytical lens, it is possible to explore the combination of a wide range of factors in determining labour standards for a particular firm and sector.

Figure 13.1 Levels of labour regime analytical framework



Source: Author’s elaboration.

Labour regimes in China: variation and shifts

This framework helps us overcome the trap of ‘methodological nationalism’ and ‘Chinese exceptionalism’ if we consider the potential variety of labour regimes in China. Empirical research on labour relations in China originates from an array of disciplines from economics and industrial sociology to economic geography and political economy (Lüthje et al., 2013; Lee, 2009; Lerche et al., 2017). However, there is no consensus around the dominance of a particular labour regime, even though much of the literature has documented the extent to which labour control and repression have facilitated accelerated accumulation and transformations in China. Most studies articulate competing taxonomies of labour/production regimes with varying consequences in terms of labour standards and their evolution over time. Lüthje et al. (2013) consider up to five production regimes in the manufacturing sector only, with varying implications for labour standards: from those characterized by more stable employment, greater skill requirements and higher wages (e.g. in state-bureaucratic sector and TNCs-JVs in petrochemicals, automobile, steel) to ‘low-wage’ flexible labour regimes encompassing more or less globally integrated production, strong labour segmentation, reliance on migrant workers, and poor working conditions, mainly in low-technology light manufacturing. Construction labour regimes, driven by the project nature of work in this sector, share such characteristics of strong labour segmentation and flexible insecure employment. In construction, a dominant pattern is the dominant presence of footloose migrant workers employed through complex subcontracting chains that makes them prey to the discretion of labour brokers/gangmasters and widespread informalization of labour relations (Swider, 2015). A dualism between more stable secure labour relations on the one hand and flexible, insecure, and informalized relations on the other hand straddles both the state–private ownership divide and sector boundaries, even if some regimes are more dominant in some sectors (Lüthje et al., 2013). This segmentation and flexibilization has

arguably contributed to the empowerment of employers vis-à-vis workers, especially in those sectors characterized by flexible employment and reliance on migrant workers. In this regard, a particularity of China's labour regimes is the role of the *hukou* (household residential) system, which kept the umbilical cord between urban migrant workers and their rural households, thereby facilitating low-wage regimes (Lee, 1999; Lerche et al., 2017).

However, these snapshot descriptions of prevailing labour regimes in China mask two additional types of variations within each sectoral labour regime. First are cross-sectional variations based on market structures (and degree of sector/internal competition), whether firms are export or domestic-market oriented, as well as on type of ownership, and especially the three leading categories in China: SOEs, JVs with TNCs, and domestic private firms. Second, longitudinal variations led by the rapid economic transformations and series of reforms that have gradually reconfigured the political economy of production and labour relations since the 1980s. It is worth noting, in particular, the role of corporatization of the SOE sector, and the concomitant growth in the private sector, which generally strengthened the authority of managers and weakened workers' bargaining power in the 1990s, leading to the emergence of a labour regime of "disorganized despotism", different from the neo-traditional regime of "organized dependence" attributed to the pre-reform SOEs or to SOEs with monopoly power (Lee, 1999). Particularly in the sectors pertaining to the flexible mass production and "low wage classic" regimes (e.g., textile and garment, toys, and other consumer goods) employer interests were well organized and coordinated, and their influence on local implementation of labour policies and exemptions has been noticeable (Lüthje et al., 2013). The fragmentation of the working class into multiple administratively and contractually defined categories reinforced the empowerment of capital, especially in the 1990s and early 2000s (Pringle, 2017). The rapid influx of FDI to China's 'sunbelt' and the incorporation into global production networks operating with a logic of flexible accumulation

and subject to fierce competition between ‘capitals’ sourcing from different parts of the world, also generated pressures towards labour segmentation and flexible just-in-time (JIT) employment practices (Lerche et al., 2017). In the most exploitative labour regimes (garment and construction), characterized by the increasing role of labour intermediaries, there is a “triple absence”: (1) the absence of recognized labour relations and recognized employers (because of the role of intermediaries); (2) the absence of the right to organize (resistance to unionization); and (3) the absence of rights other than those directly related to labour relations (ibid.). In sum, during the 1980s and 1990s, both national-level political economic dynamics and the penetration of highly dynamic and flexible GPNs produced the conditions for the emergence of labour regimes with weak workers’ bargaining power, leading to ‘despotic’ workplace relations.

At this point, two caveats are fundamental. First, as stated above, the most exploitative labour regimes coexist with other regimes where labour outcomes were different and better, reflecting legacies of the neo-traditional regime of “organized dependence” (Lee, 1999). Second, the conditions observed in the export-oriented industrial ‘sunbelt’ of coastal China or in its booming construction sector are similar and not necessarily worse than what is observed in other parts of Asia (Lerche et al., 2017) and generally in the developing world, lending credence to the fallacy of Chinese exceptionalism (Chan, 2015).

Chinese exceptionalism in labour relations can also be questioned on the grounds of dynamics of change in the past three decades, and especially trends in the past fifteen years, which make us doubt that Chinese workers are mostly powerless vis-à-vis the more exploitative labour regimes. Silver’s work (2003) on historical tendencies in labour resistance and mobilization shows that capitalism’s technological fixes, such as flexible sourcing, automation, and other innovations may partly weaken labour’s bargaining power in some places but ultimately provoke new instances of potential resistance and enhanced bargaining

power. This has happened in China in recent times. Real wages of urban workers, including migrant workers, have grown substantially between 2000 and 2016—five-fold in the case of real urban wage rates and four-fold for migrant workers, an unprecedented change in China’s contemporary history (Lo, 2018).

Labour ‘striking back’, if this is what rapidly rising wages mean, is linked to a range of competing explanations. First, JIT systems in globally integrated production networks and industrial upgrading (as experienced in Guangdong) increase the vulnerability of capital to workplace disruption at key nodes of the chain (Silver, 2003; Pringle, 2017). These shifts may empower certain worker segments, in transport and communications sectors, while other segments remain stuck in low gear, so the outcomes are uneven (hotels, retail, restaurant and other seasonal service workers). Second, state intervention, especially through new labour legislation enacted in 2008 and 2013 and its relatively enhanced enforcement, have strengthened a set of new ‘hard rules’, with an important role for minimum wages and moves towards reducing segmentation and insecure employment (Lüthje et al., 2013; Chan, 2015). Third, despite a rather weak official union system, labour militancy and Marx-type ‘offensive’ struggles seem on the rise, often on issues of closures and compensation (Pringle, 2017). Fourth, demographic change, population ageing and the gradual exhaustion of the vast pool of rural young labour may explain emerging evidence of labour shortages and a “Lewis turning point”, which may have strengthened industrial workers’ bargaining power (Yao, 2014). It is difficult to establish which of these factors is more important, not least because they are all interrelated, especially the increasingly ‘pro-labour’ state interventions since 2008 and growing labour conflict, both feeding one another.

It is in this context that the ‘flying geese’ hypothesis has been revived in connection with the potential relocation of Chinese supply chains overseas, and particularly to Africa (see Chapter 14). The rise of industrial GPNs and its associated FDI dynamics since the 1980s

have engendered a global pattern whereby, wherever capital (automobile, garment, electronics) moves to, new labour–capital conflict arises, and when that happens and threatens profits, capitalists resort to technological (automation) and/or spatial fixes (Silver, 2003: 81). Thus the overview of labour regime features and their changes over time in China provides some important lessons to understand (a) the drivers of investments towards Africa—what new ‘spatial fixes’ GPNs and Chinese firms will generate—and (b) what kinds of labour regimes will be associated with these investments in the new host countries. Whether Chinese capital flowing to Africa produces a new wave of ‘race to the bottom’ is a matter of empirical investigation that is still scarce on Africa, as shown in the previous section, and will not in any case manifest any kind of ‘exceptionalism’, given common global patterns. Some illustrations of the diversity of new Chinese labour regimes in SSA and the importance of context follow in the next section.

Capital–labour relations from the African ground: illustrations from case studies

Understanding labour relations in Chinese firms in Africa requires an understanding of what kinds of capital move, in what sectors, and how they adapt to what political and economic contexts. This section uses evidence from selected case studies to show how variations in labour regimes in Chinese enterprises in Africa contribute to some of the outcomes discussed in the previous section.¹³ Evidence on Chinese firms in Africa points to a variety of patterns depending on countries. In most countries, we find SOEs in construction, small and medium-sized firms in light industry and building materials sectors, a mix of SOEs and private firms in extractive sectors (mining and oil), and small firms in services (Shen, 2015; McKinsey,

¹³ The evidence selected for this section comes primarily from high-quality ethnographic research on Chinese firms in mining and construction in Zambia (Lee, 2017), longitudinal qualitative evidence on labour practices in Angola (Tang, 2010, 2016) and recent comparative qualitative research in construction and manufacturing in Angola and Ethiopia from a SOAS project in progress (<https://www.soas.ac.uk/idcea/>).

2017; Wolf and Cheng, 2018). Labour processes and regimes differ a lot between these sectors and across firm types, particularly between construction and mining, and between construction and manufacturing. Our own research in Angola and Ethiopia also points to important differences within same sectors and types of firms, driven by the national political economy context, particularly labour market structures, labour supply dynamics, government policy, and local labour institutions. In sum, variation in labour practices as illustrated in this section confirms the need to analyze labour outcomes in Chinese firms as the result of complex interactions between the three levels proposed under our labour regime analysis (Figure 13.1).

Lee (2017) produces unusual longitudinal comparative ethnographic research on accumulation regimes and labour outcomes in Zambia, in mining and construction, two sectors where the presence of Chinese firms is significant alongside other foreign companies. Lee grounds her theoretically informed work in the direct experiences of workers, managers, policy makers, and politicians, reflecting fluid encounters that defy generalizations, while suggesting some analytically relevant patterns. Thus a distinction is made between varieties of capital (i.e., different types of Chinese capital) to overcome the trap of “methodological nationalism” or “national institutionalism” inherent in a ‘varieties of capitalism’ approach (Ibid.: 9). The combination of systemic forces (inherent accumulation logic of capital, competition imperatives, etc.) and contingent events (1970s and 2008 crises, technological breakthroughs, ‘going out’ of Chinese enterprises) produces outcomes that cannot be simply deducted from some form of historical determinism. Chinese state capital (SOEs), for example, “at home and abroad, is Janus faced, both centrally controlled and also capable of decentralized and local improvisation” (Ibid.: 10). Therefore, Lee shows that in order to explain labour outcomes in Chinese mines and construction sites in Zambia, it is critical to understand the dual logic of Chinese state capital (accumulation for profit, and securing

resources and political/diplomatic influence) compared with the single-minded profit-driven logic of private capital, whether Chinese, other foreign, or domestic. Historical and country contextualization is also essential as all ‘capitals’ faced a common labour law regime that has been liberalized after decades of structural adjustment and deregulation in Zambia. Through this nuanced empirical immersion, Lee reveals contradictory labour outcomes in mining, whereby Chinese state capital workplaces are characterized by stable but low-wage employment, whereas private TNCs may display seemingly less exploitative practices in a more flexible labour regime where retrenchment is the immediate response to market volatility, as experienced in the 2008–09 crisis. This research also shows the importance of sector specificities and particularly the exploitative features of construction labour regimes, whether in China, Zambia, or Europe, in contrast with the tradition of labour militancy and important political effects of the copper mining sector. Lee (2017: 29) argues that “the footloose and project-based nature of construction undermines the collective capacity of construction labour in its struggle with capital, whether state or private”. Finally, at the analytical level of the national political economy, the Zambian context suggests that “politics - and, more precisely, a political synergy between state and society- not bureaucracy or technocracy ... is the key to leveraging Chinese state capital for development” (Lee 2017: 158).

Ongoing SOAS comparative research on Angola and Ethiopia also places emphasis on the politics of production at the national political economic level. In Angola the imperative of rapid post-war infrastructure reconstruction in the period 2005–15 and the political expediency of Chinese-financed and -built projects meant much less attention to job creation and local linkages, an omission partly exacerbated by a weak and resource-poor trade union system. The lack of voice from civil society and the absence of electoral contestation to the ruling party MPLA left priorities in the hands of the narrow Angolan political elite. By

contrast, in Ethiopia, the imperative of structural transformation was linked to rapid job creation so workforce localization was far more important and politically important. Indeed, the promises of industrialization and rapid job creation have also generated expectations that shape the politics of production in the country, paradoxically leading to more labour militancy alongside protests around the appropriation of development outcomes. There are implications for labour outcomes, either in terms of different rates of workforce localization for SOEs, or in terms of the attraction of labour practices from globally integrated manufacturing production in Ethiopia compared to more informalized labour relations in factories oriented to the Angolan domestic market. These differences also entail different paths towards structural transformation and the building of an industrial workforce more dynamic in Ethiopia than in Angola.

SOAS comparative research in these two countries also reminds us of the context specificity of sectors, which makes the “methodological nationalism” of comparisons between firms of different nationality questionable. Lee (2017: 156) illustrates how different varieties of capital, Chinese state or global private, may in certain sectors adopt labour regimes that share international and industry-wide tendencies. While it is true that informalized and casualized labour is a central tendency in construction labour practices across countries, the preliminary findings of SOAS research suggest that the national context is crucial to understand differences in labour outcomes even for the same varieties of capital. Chinese SOEs are present in both Angola and Ethiopia but they adapt their labour practices to the labour market context they find, whether as a function of labour legislation and its enforcement (more liberal and less enforced in Angola) or in relation to the relative scarcity of skills in the two countries. In both countries, all forms of capital (state or private) in the construction sector find it hard to adopt the cascade subcontracting practices found in China and other countries with ‘thick’ construction business networks, and are forced to engage in direct employment

and processes of recruitment and retention as in the manufacturing sector. Labour intermediaries are therefore absent, especially in Angola, so employers and employment relations are explicitly recognized, even if this does not necessarily translate into better working conditions in terms of wages, security, and benefits, given the weakness of labour legislation and associated institutions.

Various authors also pay attention to the particularities of management ethos in different varieties of Chinese capital across different sectors (Lee, 2017, Tang, 2016, Sun, 2017). Lee (2017: 13) does refer to the particular management ethos present in Chinese state capital characterized by “eating bitterness” and a form of “collective asceticism” that contrasts with the dynamic individual careerism of managers in global private capital. Tang (2016) also suggests that language barriers, lack of communication, and a tendency towards isolation from local host society create perceptions that affect labour encounters and fuel negative perceptions. Perhaps the main aspect of labour encounters between Africa and China that may result from ‘Chinese characteristics’ is language barriers and communication problems, which may exacerbate some of the work culture clashes and contradictory expectations common to all varieties of capital within and across sectors.¹⁴ Chinese managers and firms do adapt though, after long periods of observation and interaction, thus gradually overcoming initial barriers. Notwithstanding these differences, there is a risk of describing these differences and ‘clashes’ as static attributes of culture, as there are also important similarities across different national boundaries. It is possible to speak of management ethos that is specific to certain sectors or production regimes, rather than nations/cultures, for example, a disciplinary and time-efficiency oriented ethos in labour-intensive garment factories, with work culture clashes that happen between African workers newly arrived to a low-wage factory labour regime and foreign factory managers often coming from China, India,

¹⁴ Tang (2016) provides ample evidence of these barriers affecting labour conflicts and the effectiveness of training and labour management more generally in several African countries.

Bangladesh, and Sri Lanka (in the case of Ethiopia). Many of the negative perceptions about workers' qualities and employers' behaviour essentially reflect the fact that "factory owners have always complained about their workers during early phases of industrialization and Chinese bosses in Africa are no exception" (Sun, 2017: 99). Many authors have given examples of negative representations of workers in the early phases of industrialization in today's industrial giants: Germany, Japan, and China (Oya, 2019; Chang, 2008).

Management ethos and associated labour practices also depend on some structural factors and strategic decisions, such as between labour-intensive and capital-intensive production, and between international customers (exporting to global markets) and domestic markets (Sun, 2017: 52–5).

Chinese exceptionalism? African agency and context

This chapter explores the labour implications of the rise of Chinese FDI and building contractors in Africa, and their encounters with workers, states, and unions in African countries. A selective survey of the available literature on labour practices in Chinese firms in Africa shows the widespread negative *perceptions* of exploitative management despite very limited systematic and comparative evidence. There is plenty of anecdotal evidence on rates of localization (or the extent to which these firms rely on imported Chinese labour), poor working conditions, and limited skill development, but emerging scholarly research paints a more nuanced picture of labour outcomes, and much greater variation than usually recognized. There is urgent need for more systematic, comparative, and larger-scale mixed-methods evidence to assess the extent to which Chinese firms adopt labour regimes that are similar to those found in China and how they adapt to new national political economy and labour market contexts as they travel. The chapter proposes different sets of questions grounded in a labour regime framework to understand the variety of labour regimes found in

China and the shifting trends of the past two decades. This analysis suggests that labour practices and outcomes are fluid and that the ‘methodological nationalism’ inherent in emphasizing labour ‘Chinese characteristics’ is misplaced. Through illustrations from more recent case-study evidence of labour encounters in different African countries, this chapter stresses that, in order to make sense of the multiplicity of outcomes in labour relations in Chinese enterprises in Africa (and elsewhere) it is crucial to understand and document: (a) the diversity of ‘Chinese capitals’; (b) the importance of African labour market contexts and their current historical conjuncture; (c) the dynamics of state–society and state–capital relations in each country; and (d) the particularities and structural features of different sectors and production regimes in which Chinese firms are investing and operating. More rigorous evidence on these dimensions is necessary to extract policy-relevant lessons, so that African countries and their governments can act to maximize the positive employment effects of the rise of Chinese actors in Africa. Indeed, the chapter has shown that the process of job creation and the quality of jobs can be substantially influenced by policy in host countries in the form of ‘sticks’ and ‘carrots’ that can enforce and induce better labour standards. Only more rigorous comparative approaches to these questions and constructive suggestions for policy will help us overcome some of the myths that have marred our understanding of the subject until now.

References

- Amsden, A. H. (2001) *The rise of “the rest”: challenges to the west from late-industrializing Economies*. Oxford: Oxford University Press.
- Akorsu, A.D., and F.L. Cooke (2011) ‘Labour Standards Application among Chinese and Indian Firms in Ghana: Typical or Atypical?’ *The International Journal of Human Resource Management* 22 (13): 2730–48. doi:10.1080/09585192.2011.599941

Baah, A.Y., and H. Jauch (2009) 'Chinese Investments in Africa: A Labour Perspective'.

Accra and Windhoek: African Labour Research Network.

Bashir, S. (2015) 'The Imperative of Skills Development for the Structural Transformation of Sub-Saharan Africa'. Investing in Africa Forum. World Bank, Washington, DC.

<https://openknowledge.worldbank.org/handle/10986/22380>

Bernstein, H. (2010). *Class dynamics of agrarian change*. Sterling, VA: Kumarian Press.

Burawoy, M. (1985). *The politics of production: Factory regimes under capitalism and socialism*. London: Verso Books.

Burawoy, M. (2013). 'Ethnographic fallacies: reflections on labour studies in the era of market fundamentalism', *Work, employment and society*, 27(3): 526–536.

Chan, A. (2015) 'The Fallacy of Chinese Exceptionalism', in A. Chan (ed.), *Chinese workers in comparative perspective*. Ithaca: Cornell University Press, 1–20.

Chang, H.J. (2008) *Bad Samaritans: The guilty secrets of rich nations and the threat to global prosperity*. London: Random House.

Chen, Y. et al. (2016) 'Learning from China?: Manufacturing, investment, and technology transfer in Nigeria'. Working Paper No. 2016/2. China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, Washington, DC.

Corkin, L. (2011) 'Chinese Construction Companies in Angola: A Local Linkages Perspective'. MMCP Discussion Paper No. 2. University of Cape Town and Open University

Fei, D. (2018) 'Work, Employment, and Training Through Africa-China Cooperation Zones: Evidence from the Eastern Industrial Zone in Ethiopia'. Working Paper No. 2018/19. China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, Washington, DC.

Gerschenkron, A. (1962) *Economic backwardness in historical perspective: a book of essays*. Cambridge, MA: Harvard University Press.

Lam, K.N. (2014) 'L'inévitable «localisation»: les entreprises publiques chinoises de la construction au Ghana', *Politique africaine*, (2): 21–43.

Huang, M. and P.Q. Ren (2013) 'A Study on the Employment Effect of Chinese Investment in South Africa'. Discussion Paper No. 4/2013. Stellenbosch: Centre for Chinese Studies.

Lee, C. K. (1999) 'From organized dependence to disorganized despotism: Changing labour regimes in Chinese factories', *China Quarterly*, 157: 44–71.

Lee, C.K. (2017) *The Specter of Global China: Politics, Labor, and Foreign Investment in Africa*. Chicago: University of Chicago Press.

Lerche, J., Mezzandri, A., Chang, D. O., Ngai, P., Huilin, K., Aiyu, L., and Srivastava, R. (2017) 'The Triple Absence of Labour Rights: Triangular Labour Relations and Informalization in the Construction and Garment Sectors in Delhi and Shanghai.' Centre for Development Policy and Research Working Paper 32/17, SOAS University of London.
<https://eprints.soas.ac.uk/23863/1/file118684.pdf>

Lo, D. (2018) 'Perspectives on China's Systematic Impact on Late Industrialization: A Critical Appraisal'. Working Paper n. 03. Industrial Development Construction and Employment in Africa. SOAS, University of London.

Lüthje, B., S. Luo, and H. Zhang (2013) *Beyond the iron rice bowl: regimes of production and industrial relations in China*. Frankfurt: Campus Verlag.

McKinsey (2017) 'Dance of the Lions and Dragons - How Are Africa and China Engaging, and How Will the Partnership Evolve?' McKinsey & Company.

Meagher, K. (2016) 'The scramble for Africans: Demography, globalisation and Africa's informal labour markets', *Journal of Development Studies*, 52(4), 483-497.

Oya, C. (2019) 'Building an Industrial Workforce in Ethiopia: Historical Lessons and Current Dynamics', in F. Cheru, C. Cramer, and A. Oqubay (eds) *The Oxford Handbook of the Ethiopian Economy*. Oxford: Oxford University Press.

Oya, C., C. Wolf, and S.K. Cheng (2018) 'Chinese Firms and Employment Dynamics in Africa: A Literature Review'. Working Paper n. 04. Industrial Development Construction and Employment in Africa. SOAS, University of London.

Pringle, T. (2017) 'A class against capital: Class and collective bargaining in Guangdong', *Globalizations*, 14(2): 245–258.

Rounds, Z. and Huang, H. (2017) 'We are not so different: A comparative study of employment relations at Chinese and American firms in Kenya'. Working Paper No. 2017/10. China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, Washington, DC.

Sautman, B., and H. Yan (2015) 'Localizing Chinese enterprises in Africa: From myths to policies' (No. 2015-05). HKUST Institute for Emerging Market Studies.

Sautman, B. and H. Yan (2016) 'The discourse of racialization of labour and Chinese enterprises in Africa', *Ethnic and Racial Studies*, 39(12): 2149–2168.

Selwyn, B. (2014) 'Capital–Labour and State Dynamics in Export Horticulture in North-east Brazil', *Development and Change*, 45(5), 1019–1036.

Selwyn, B. (2016) 'Global value chains and human development: a class-relational framework', *Third World Quarterly*, 37(10), 1768–1786.

Silver, B. J. (2003) *Forces of labor: workers' movements and globalization since 1870*.

Cambridge: Cambridge University Press.

Shelton, G. and C. Kabemba (2012) 'Win-Win partnerships: China-Southern Africa and the extractive industries', Johannesburg, Southern Africa Resource Watch.

Shen, X. (2015) 'Private Chinese Investment in Africa: Myths and Realities', *Development Policy Review*, 33 (1): 83–106.

Sun, I. Y. (2017) *The next factory of the world: How Chinese investment is reshaping Africa*. Harvard Business Review Press.

Swider, S. (2015) *Building China: Informal Work and the New Precariat*. Ithaca: Cornell University Press.

Tang, X. (2016) 'Does Chinese Employment Benefit Africans? Investigating Chinese Enterprises and their Operations in Africa', *African Studies Quarterly*, 16(3/4): 107–128.

Wolf, C. and S.K. Cheng (2018) 'Chinese Overseas Contracted Projects and Economic Diversification in Angola and Ethiopia 2000-2015'. Working Paper n. 02. Industrial Development Construction and Employment in Africa. SOAS, University of London.

Yao, Y. (2014) 'The Lewis turning point: Is there a labour shortage in China?', in S. Fan, R. Kanbur, S.J. Wei, X. Zhang, *The Oxford Companion to the Economics of China*. Oxford: Oxford University Press, 388–392.

Appendix Table A1: Estimated employment localization rates in Chinese firms in Africa from most significant studies/cases

Study	Year	Country	Sector	Firm/ project	African workers	Chinese workers	African workers (% total)
Akorsu and Cooke (2011)	2009	Ghana	manufacturing	GUMCO	250	3	99%
Baah and Jauch (2009)	2008	South Africa	manufacturing	FIDA, IINCOOL, KaRITA (all clothing)	958	27	97%
CARI-SAIS (Survey by Chinese official)	2011	Rwanda	construction	China Road & Bridge Corp. (Road building)	2,000	110	95%
Lee (2017)	2007	Zambia	mining	Chambishi copper mine	2,063	189	92%
Chen et al. (2016)	2018	Nigeria	manufacturing	16 Chinese firms (cumulative number of workers)	5,656	540	91%
Warmerdam and Dijk (2013)	2012	Uganda	various	42 companies in Kampala	9,845	1,004	91%
World Bank (2012)	2011	Ethiopia	manufacturing, services, and construction	Survey of 69 Chinese firms	23,723	2,728	90%
CARI-SAIS (Reuters)	2011	Zimbabwe	mining	Anjin: Joint venture diamond mining	1,700	210	89%
McKinsey report (2017)	2016–17	8 countries	various	Survey of over 1,000 companies	300,000	37,079	89%
Brautigam and Tang (2012)	2011	4 countries	manufacturing	Firms in 4 Special Economic Zones	13,592	1,979	87%
CARI-SAIS (Hans E. Petersen and Sanne van der Lugt's report)	2011	DRC	construction	DRC Reconstruction of Lubumbashi (N1) – Kasenga (Zambian Border) Road Reconstruction	600	100	86%
Sautman and Yan (2015)	2007–13	12 countries	various	Surveys and reports for over 400 firms/projects	N/A	N/A	85%
CARI-SAIS (China Africa Business Council)	2013	Africa	various	193 Chinese companies in Africa	34,000	6,400	84%
Baah and Jauch (2009)	2008	Ghana	construction	Bui hydroelectric dam (Sino Hydro)	560	110	84%
Huang (2013)	2012	S. Africa	various	16 companies	4,160	779	84%
Baah and Jauch (2009)	2008	Angola	construction	Sinohydro	715	312	70%
CARI-SAIS (The Africa Report)	2010	Mozambique	construction	Mozambique stadium	1,000	500	67%
Tang (2010)	2007	Angola	various	55 companies	5,482	3,353	62%
CARI-SAIS (Enrique Martino reports)	2013	Equ. Guinea	construction	China Road and Bridges	60	600	10%

Source: Author's elaboration based on sources reported in first column; CARI-SAIS sources are available from their database at <http://www.sais-cari.org/data-chinese-workers-in-africa>

